

Dmitry Babichev

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in babichev

Professional experience

Lead Researcher, [Huawei](#)

2021 - now

Remote

Development of new methods for Voice Biometrics problems, using deep learning techniques

Postdoctoral researcher, [ParisTech Telecom](#)

2019

Paris, France

Anomaly detection, using extreme value distributions

Lead Professor at Data Science, [The AI Institute](#)

2019 - 2021

Paris, France

Management, development, and teaching of AI course. Participate in interviews with new professors/TA/students.

Researcher, [INRIA](#)

2015 - 2019

Paris, France

Development of new machine learning methods and acceleration of existing ones, using stochastic gradient descent

Researcher, [CEDAR Audio Ltd](#)

May, 2018 - July, 2018

Cambridge, UK

Industrial internship in audio restoration techniques

Researcher, [École polytechnique fédérale de Lausanne](#)

May, 2017 - July, 2017

Lausanne, Swiss

Academic internship in signal processing techniques

Teaching Assistant, [Moscow Institute of Physics and Technology \(MIPT\)](#)

2012 - 2015

Moscow, Russia

Chair of Mathematical Foundation of Control. Subjects: Probability Theory, Stochastic Processes, Discrete Analysis

Publications

- Babichev, Dmitry and Ostrovskii, Dmitry and Bach, Francis *Efficient Primal-Dual Algorithms for Large-Scale Multiclass Classification*, arXiv
- Babichev, Dmitry and Bach, Francis *Constant Step Size Stochastic Gradient Descent for Probabilistic Modeling*. UAI 2018, oral presentation
- Babichev, Dmitry and Bach, Francis *Slice inverse regression with score functions*. Electronic Journal of Statistics, 12(1):1507-1543, 2018.
- Babichev, Dmitry *Circles Touching Sides And The Circumcircle For Inscribed Quadrilaterals*. Journal of Classical Geometry Volume 1 (2012) 1 (2012): 57.
- Babicheva, Tatiana and Babichev, Dmitry et al., *Handbook on Olympiad mathematics. Level A1 (In Russian)*, ISBN 978-5-00058-886-4, MIPT Olympiad Schools, 2018, Moscow

Skills



Fields of Scientific Interest

Algorithms, Machine Learning, Mathematical Statistics, Probability Theory, Stochastic Processes, Optimization, Discrete Analysis, Combinatorics



Programming languages

Python (PyTorch, Keras, TensorFlow), R, C++, Matlab

Education

PhD in informatics. On efficient methods for high-dimensional statistical estimation, [École Normale Supérieure - Inria](#)

2015 - 2019

MSc in Applied Mathematics and Physics. Solution of inverse problems of seismic exploration using difference schemes, [MIPT](#)

2012 - 2014

BSc in Mathematics. Embedding theorems for anisotropic Sobolev spaces in Besov spaces of zero smoothness., [MIPT](#)

2008 - 2012

Achievements

GRE math: 98% score

2015

Gold medal at International Mathematical Olympiad (IMO)

2008

1st place at Russian Mathematical Olympiad

2007, 2008

Languages

Russian

English

French



Managerial experience

Management of 480 hours Data Science course. Supervision of students.

[The AI Institute](#)

2019-2021

Paris, France